

Violence in the workplace

Gary M. Liss, MD, MS, FRCPC; Lisa McCaskell, RN

Résumé : La violence en milieu de travail est une cause importante de blessures et de mortalité : elle a occasionné plus de 7 600 décès aux États-Unis au cours des années 1980. Le Canada n'a pas de données sur les blessures résultant d'abus en milieu de travail, aussi l'analyse de ce genre de blessures dans un hôpital par le Dr Annalee Yassi (voir pages 1273 à 1279 de ce numéro) est-elle une contribution précieuse. Des sondages auprès des travailleurs de la santé en Ontario, en Saskatchewan et ailleurs ont permis de relever des taux auto-déclarés d'agression de 20 % à 50 % pour les 12 mois précédant l'enquête. La prévention de ce genre de violence doit passer par une meilleure collecte de données, y compris l'ajout de la question «Accident du travail?» sur les certificats de décès, de l'information détaillée provenant des coroners, un système national de rapport sur les blessures au travail et l'amélioration des données de la Commission des accidents du travail sur toutes les blessures de ce genre. Des mesures visant à réduire les homicides et les agressions en général, ainsi que des stratégies spécifiques pour le secteur de la santé, ont également été recommandées. Plusieurs provinces ont récemment adopté des règlements afin de protéger les travailleurs contre la violence.

The day we began this editorial we were greeted with the news that a police officer in Metropolitan Toronto had died from a gunshot injury to the head sustained in the line of duty. Although this was one high-profile incident, violence in the workplace in general has received considerable media attention in recent years.¹⁻⁴

In examining this issue, one can ask several questions: How significant is workplace violence as a cause of injury and death? To what extent has the problem been recognized? What preventive measures can be recommended?

Violence is different from the usual hazards to which workers are exposed, such as chemical agents (e.g., benzene) and physical agents (e.g., ionizing radiation). Most hazardous exposures can be measured, the outcomes (e.g., leukemia) can be related to a dose or exposure, and dose-response relations can often be estimated. In contrast, exposure to violence (ranging from verbal threats to sexual harassment to assault) cannot be easily measured. The outcomes can be fatal (work-related homicide) or nonfatal (bruises, cuts, post-traumatic stress).

The analysis of "abuse-induced" injuries by Dr. Annalee Yassi (see pages 1273 to 1279 of this issue) is a useful addition to the few Canadian reports on the subject. It considers one sector of the workforce that is certainly at risk: health care workers. Yassi's study is a detailed, retrospective survey of the incidence of such injuries over 2 years at the Health Sciences Centre, Winnipeg, a large urban hospital. It is based mainly on reports to the hospital's occupational health department, although the numbers and costs of lost-time injuries from workers' compensation claims formed part of the data. For example, 194 injuries in nurses and ward staff resulting from abuse were reported during the 2 years, of which 14 were the basis of lost-time-injury claims.

Yassi is to be commended for presenting rates of abuse-related injury in addition to frequency of claims, although the rate used (number of injuries per 100 000 paid hours) makes it difficult to compare these results with those of other studies. However, if one assumes that

Dr. Liss is a medical consultant in the Health and Safety Studies Unit of the Ontario Ministry of Labour and Ms. McCaskell is a research officer specializing in occupational health and safety with the Ontario Nurses' Association, Toronto, Ont.

Reprint requests to: Dr. Gary M. Liss, Health and Safety Studies Unit, Ontario Ministry of Labour, 7th floor, 400 University Ave., Toronto, ON M7A 1T7

a full-time employee works about 2000 hours per year, these rates may be expressed as the number of injuries per 50 employees per year. Doubling the rate yields a rate per 100 employees per year (the percentage of employees abused each year). For example, the rate among psychiatric nurses was 13 per 100 employees or 13% per year. The injury rates were greater among nurses than among other staff and greater among men than among women — differences that have been observed in other studies.⁵⁻⁷ The higher injury rate among men than among women may indicate that men work more frequently in dangerous settings or that they are assigned more patients suspected or known to be violent. Yassi has also included valuable data about verbal abuse and physically threatening behaviour on the part of patients.

Burden of suffering

Does violence in the workplace involve a significant burden of suffering? Unfortunately, there are few Canadian data. However, for the United States, an estimate based on the National Traumatic Occupational Fatality (NTOF) surveillance system developed by the National Institute for Occupational Safety and Health (NIOSH) placed the number of workplace homicides during the 1980s at more than 7600.⁸ The data were collected from state death certificates for workers 16 years of age or older that noted an external cause of death (International Classification of Diseases, 9th revision,⁹ E800 to E999) and an affirmative response to the question "Injury at work?" on the certificate. Homicide was the third leading cause of fatal traumatic occupational injury,¹⁰ accounting for 12% of such deaths overall but 40% of such deaths in women.¹⁰⁻¹² By industry, the number of homicides was highest in retail trade and services; however, retail trade, public administration (including police), and transport and communications had the highest rates of homicide.

In all Canadian jurisdictions there is no "Injury at work?" question on death certificates. We previously identified 84 work-related homicides in Ontario between 1975 and 1985 from coroners' records and a manual review of a sample of death certificates in cases of homicide.¹³ This report certainly underestimated the number of such events. The occupations with the highest risk of workplace homicide were, not surprisingly, gas-station attendant, police officer, taxi driver and guard or security officer;^{13,14} employees in these occupations are frequently required to work alone. The rates of work-related homicide in the United States^{8,10} were about eight times higher than our estimated Ontario rates, a ratio similar to that of all homicides in the United States compared with all of those in Canada.

Certain activities place workers at high risk of physical assault;¹⁵ obviously, there is overlap with activities in which workers are at risk of homicide. Workers at high risk of violence include those who:

- handle money, including retail workers;
- provide information and advice or make decisions that directly affect the lives of clients (e.g., government workers in employment centres, parole officers and employees of the Children's Aid Society);
- provide care in institutional settings (e.g., health care workers, teachers and custodial workers);
- provide services (e.g., postal workers and maintenance workers); or
- work alone (e.g., taxi drivers and home visitors).¹⁵

The burden of suffering due to assaults in the workplace can be estimated from various sources of data, including surveys, workers' compensation data⁵ and, in the health care setting, hospital employee reports. Surveys of health care workers in Ontario,¹⁶ Manitoba¹⁷ and Saskatchewan¹⁸ revealed a high prevalence of self-reported assault during the workers' careers, from 20% to 80%. For example, a survey of randomly selected nurses in Ontario showed that 59% had been assaulted during their nursing careers, 35% during the past 12 months; however, these survey results were limited by a low response rate of 27%.¹⁶ In general, the rates of assault on health care workers are higher in institutions than in community settings and, within institutions, higher in psychiatric departments (as observed by Yassi and by Lipscomb and Love¹⁹) and emergency departments than in others.^{19,20}

Data collected by workers' compensation boards, especially lost-time-injury claims, may underestimate the number of assaults on health care workers⁵ because the data do not include rejected claims, those with no lost time or incidents with long-term sequelae (e.g., post-traumatic stress disorder, fear of subsequent attacks and so on).²¹ As well, many incidents go unreported.^{16,22,23} In the Ontario survey, only 5% of nurses who reported that they had been assaulted filed claims with the Ontario Workers' Compensation Board.¹⁶ A recent study in the state of Washington examined violent injuries at two state-run psychiatric hospitals.²⁴ Workers' compensation data showed that assaults accounted for 12.0 to 16.6 accepted claims per 100 hospital employees per year (about 20 claims per 100 nurses); however, hospital employee-injury reports, which were more complete, indicated rates of 35.3 to 41.0 reported assaults per 100 employees per year (about 65 assaults per 100 nurses).

Costs

The overall costs resulting from assaults exceed those associated with workers' compensation alone, as Yassi notes. Other costs may include those associated with fear of recurrent assault, family disruption, career change, replacement of staff, police time and employee-assistance-program time.^{25,26}

Recognition

Has violence in the workplace been recognized as a

health and safety problem? Despite published health-and-safety information and alerts about this issue,^{8,14} homicide is usually dealt with solely by police rather than by occupational health and safety agencies. Furthermore, until recently, there has been no specific legislation protecting workers from violence.

Prevention strategies

A number of approaches are needed; these should involve professionals from several disciplines and should include legislative and nonlegislative measures.

Improvement in data collection

The data on homicide and assault in the workplace underestimate the true incidence because no source of data (death certificates, coroners' records or workers' compensation claims) is complete. The addition of an "Injury at work?" question to Canadian death certificates would facilitate identification and surveillance. Such information would enable investigators to identify high-risk occupations, analyse time trends and examine the effectiveness of preventive measures. A national system for reporting traumatic occupational injuries, like the NTOF system in the United States, should be established. Coroners' offices should provide accurate information on the circumstances of every homicide, and physicians should record on death certificates whether death was work-related. Workers' compensation board data on assaults should be improved to permit tracking by occupation of assaults with no lost time, rejected claims and long-term sequelae.

Strategies for health care workers

Extensive guidelines for violence prevention in the health care sector have been published in California²⁷ and Britain.²⁸ The following are examples of strategies to protect health care workers from violence.

- Address the issue of violent and aggressive patient behaviour in collective agreements.
- Develop policies and procedures for the facility that recognize the potential for violence, the employer's duty under relevant legislation to take every reasonable precaution to protect the health and safety of workers, and the need to report incidents.
 - Perform a hazard analysis of the facility.
 - Educate staff about what to do in case of violence.
 - Set up emergency response teams.
 - Develop emergency protocols to follow if violence occurs.
- Ensure adequate numbers and appropriate mix of staff in areas where violence could occur.
 - Install alarm systems (e.g., panic buttons).
 - Conduct surveillance with the use of video cameras.

- Establish liaison with police.

General preventive measures

Interventions to reduce the risk of homicide and assault, especially during robberies, have been recommended.^{14,29} These can be categorized as measures for environmental control, training, and policy and research.

Environmental control measures:

- Provide a drop safe on site to minimize cash on hand.
- Post signs stating that there is limited cash on hand.
- Install bulletproof cubicles and provide protective vests for staff.
- Conduct videocamera surveillance of the public area.
- Ensure that lighting is adequate.

Training measures:

- Train staff to avoid resistance during a robbery.
- Train staff in conflict resolution.

Policy and research:

- Limit access to firearms.
- Have police check routinely on workers.
- Increase the number of staff on duty.
- Evaluate the effectiveness of interventions.
- Limit staff members' hours of public contact.

Legislative measures

The Ontario Occupational Health and Safety Act³⁰ addresses violence only under the general-duty provisions, which oblige the employer to "take every precaution reasonable in the circumstances for the protection of a worker." The wording is similar in other provincial and territorial health and safety laws. Of interest to health care workers is the Regulation for Health Care and Residential Facilities³¹ made under the Occupational Health and Safety Act; this regulation came into effect June 1, 1993. An earlier draft of this regulation, developed in 1987 in consultation with workplace representatives and other interested parties (including labour and management groups), contained provisions on violence in health care facilities; however, these did not appear in the final version. The Ontario Ministry of Labour continues to be concerned about workplace violence, and it is working with stakeholders in the health care, social-services and education sectors to look for solutions. Manitoba filed a regulation entitled "The Workplace Safety and Health Act Respecting Workers Working Alone,"³² under which employers must develop a plan including identification of possible risks inherent in the work, control methods to minimize these risks and systems to provide emergency assistance. A 1993 amendment³³ to the Saskatchewan

Occupational Health and Safety Act also contains a duty for employers in workplaces where violent situations have occurred, or may reasonably be expected to occur, to develop and implement a policy to deal with potentially violent situations. And British Columbia recently added an amendment to its Industrial Health and Safety Regulations,³⁴ entitled "Protection of Workers from Violence in the Workplace," which applies to all workplaces in that province.

Conclusion

The recent regulations to prevent workplace violence are encouraging. Given the significance of workplace violence, the burden of suffering and the lack of data on the problem, the other measures outlined here are sorely needed. Recognition of workplace violence and action to prevent it should become critical health and safety issues.

References

- Sullivan P: Ontario cabbies, gas bar staff shown to face high murder risk. *Globe and Mail* 1990; Mar 26: A10
- Millions attacked while at work, says US study. *Toronto Star* 1993; Oct 18: A16
- Curbing attacks on corner stores. [editorial] *Toronto Star* 1993; Mar 14: B2
- Toufexis A: On-the-job mayhem. *Time* 1994; Apr 25: 35-39
- Liss GM, McCaskell L: Workers' compensation claims among nurses in Ontario for injuries due to violence. *AAOHN J* 1994; 42: 384-390
- Convey J: A record of violence. *Nurs Times* 1986; 82: 36-38
- Carmel H, Hunter M: Staff injuries from inpatient violence. *Hosp Community Psychiatry* 1989; 40: 41-46
- National Institute for Occupational Safety and Health: *Fatal Injuries to Workers in the United States, 1980-1989: a Decade of Surveillance; National Profile*, publ no 93-108, US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Cincinnati, 1993
- International Classification of Diseases*, 9th rev, World Health Organization, Geneva, 1978
- Jenkins EL, Layne LA, Kisner SM: Homicide in the workplace: the US experience, 1980-1988. *AAOHN J* 1992; 40: 215-218
- Bell CA: Female homicides in United States workplaces, 1980-1985. *Am J Public Health* 1991; 81: 729-732
- Davis H, Honchar PA, Suarez I: Fatal occupational injuries of women, Texas, 1975-1984. *Am J Public Health* 1987; 77: 1524-1527
- Liss GM, Craig CA: Homicide in the workplace in Ontario: occupations at risk and limitations of existing data sources. *Can J Public Health* 1990; 81: 10-15
- National Institute for Occupational Safety and Health: *Alert: Request for Assistance in Preventing Homicide in the Workplace*, DHHS (NIOSH) publ no 93-109, US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Cincinnati, 1993
- Roberts C: Too much to ask: violence in the workplace. *At the Source* 1990-91; 11: 4-7
- Nurse Assault Survey*, Nurse Assault Project Team, Psychiatric Nursing Interest Group, Registered Nurses' Association of Ontario, Toronto, 1992
- Nurse Abuse Report*, Manitoba Association of Registered Nurses, Winnipeg, 1989
- Pekrul LK: *Nurse Abuse in Saskatchewan*. [master's thesis], Central Michigan University, Mount Pleasant, Mich, 1992
- Lipscomb JA, Love CC: Violence toward health care workers: an emerging occupational hazard. *AAOHN J* 1992; 40: 219-228
- Lavoie FW, Carter GL, Danzl DF et al: Emergency department violence in United States teaching hospitals. *Ann Emerg Med* 1988; 17: 1227-1233
- Schottenfeld RS, Cullen MR: Recognition of occupation-induced posttraumatic stress disorders. *J Occup Med* 1986; 28: 365-369
- Lanza ML, Campbell D: Patient assault: a comparison study of reporting methods. *J Nurs Qual Assur* 1991; 5: 60-68
- Lion JR, Snyder W, Merrill GL: Underreporting of assaults on staff in a state hospital. *Hosp Community Psychiatry* 1981; 32: 497-498
- Study of Assaults on Staff in Washington State Psychiatric Hospitals: Final Report*, State of Washington Department of Labor and Industries, Olympia, Wash, 1993
- Britt B: Danger on the job: violence in the health care workplace. *Can Occup Saf* 1992; 30: 21
- Lanza ML, Milner J: The dollar cost of patient assault. *Hosp Community Psychiatry* 1992; 40: 1227-1229
- Guidelines for Security and Safety of Health Care Workers and Community Service Workers*, California Department of Industrial Relations, San Francisco, 1993
- Violence to Staff in the Health Services*, Health and Safety Commission, London, England, 1987
- Levin PF, Hewitt JB, Misner ST: Female workplace homicides: an integrative research review. *AAOHN J* 1992; 40: 229-236
- Occupational Health and Safety Act*, RSO 1990, c 0.1
- O Reg 67/93
- Man Reg 105/88R
- The Occupational Health and Safety Act*, SS 1993, c 0-1.1, s 14
- BC Reg 266/93, s 8.88

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